

# Effectiveness of Early Childhood Education Tutor's Teaching Skills Implemented by Cooking Demonstration Videos about Healthy Food

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## Abstract

This research is aimed at analyzing an effectiveness of Early Childhood Education tutors' teaching skills implemented by cooking demonstration videos about healthy food. This research conducted at Preschool in Jakarta. A research design used was Quasi-Experimental Design. Data analysis techniques used were t-test by using SPSS 16 version. Based on the result, it revealed that p-value is  $0.001 < \alpha (0.05)$  so, there is a significant influence on the average of Early Childhood Education tutors' teaching skills after implemented cooking demonstration videos about healthy food. An increasing value is 0.632 in the range of  $0.7 > (N\text{-gain}) \geq 0.3$  so, the skill improvement is in the medium category. An effectiveness description after implemented healthy cooking video shows the average percentage value is 91%. It indicates very effective criteria.

## 1. Introduction

An Early Childhood Education is a very basic education. The quality education will create quality human resources. According to [10] in essence education must in last a lifetime. The way to create a quality generation, the education must be done since the child is still aged. At this time, the process of growth and development in various aspects is experiencing a rapid period in the development of human life. Tutors should be able to develop a model or method of learning in accordance with the curriculum and conditions of learners to be better at developing and training about aspects of motor children development.

**Keywords:** Early Childhood Education; Tutor's Teaching Skills; Cooking Demonstration Videos; Healthy Food.

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However, based on the results of observations in schools, the learning that used recently is still applying the taking method or focused still the tutor. The activities applied tend to lead watching the activity and less creative activities.

In the learning process, a lecturing method is a method that is often used by tutors or instructors till now. This case caused by certain considerations because of the existence of habits either from tutors or children. Generally, the child is passive who only accept all explanation from tutors. Tutors use the teaching aids such as whiteboards, chalk/markers, drawing tools and etc. Those kinds are leading the power of creativity, imagination, and innovation in the child to become stiff so that the motivation of children in learning will be reduced and the results will lead to bored to children.

## **2. Material and Methods**

Teaching contains two important elements are teaching methods and teaching media. Both of these aspects are interrelated. The Selection of one particular teaching method will affect the appropriate type of teaching medium, although there are still other aspects to be considered in selecting the media, including the purpose of teaching, the type of task and response expected to be mastered by children after teaching takes place. Nevertheless, it can be said that one of the main functions of instructional media is as teaching aids that influence the climate, condition, and environment created by tutors [3]. Likewise, when the media is used in the learning process in the classroom, the information conveyed by the tutor as a messenger in the classroom can be clearly accepted by the child aged 5-6 years as the recipient of the message in the class. The Utilization of good media and adequate are expected to stimulate thoughts, feelings, attention, and interests of children aged 5-6 years so that the learning process can run well and exciting. Verbalism may arise when learning without using media. However, by using the media elements of verbalism can be reduced and even eliminated. Reduce or eliminate the element of verbalism, then children aged 5-6 years will be given the real understanding and concepts are realistically and thoroughly, and provide a comprehensive experience that ultimately gives a concrete understanding. One of the lessons that need to be given in early childhood is 5-6 years.

One of the ways that tutors can be used is by using interesting and effective learning media. According to [5], the learning media is a tool that can help teaching and learning process and serves to clarify the meaning of the message conveyed by tutors, so as to achieve the goal of learning with better and perfect. Regarding the results of interviews with classroom tutors in group B, it was found that the average physical or motor development, especially fine motor skills in children in the odd semester of the academic year 2014-2015 is still low. This case can be seen from the school assessment data in accordance with the indicator that of the total group B of 24 children, among them 10 children still got one star that is not developed (\*) and 9 children still got two stars that are developing (\*\*). Therefore, it is deemed necessary to take new action to improve fine motor skills by applying contextual learning through cooking class. The cause of this problem arises because of several factors including children are less sensitive to activities in school, children lack exercise in coordination between the brain, eyes, and fingers and innovation activities have not focused on aspects of child development. One of the alternatives to practice fine motor skills in children is to apply contextual learning through cooking classes. This

can be seen when children's cooking activities perform activities related to the development of fine motor skills of children, such as stabbing, greasing, pouring, squeezing, and cutting ingredients that can stimulate the hands and fingers in children. The Implementation of healthy food cooking demo video can improve tutors' teaching skills which are then used as motor lessons for children aged 5-6 years (Kindergarten). Based on the description that has been described, it is determined to apply contextual learning in physical or motor development, especially on the fine motor skills of children with the title of research, the influence of the implementation of healthy food cooking demo video on teaching skills of early childhood tutors.

Specifically, this research aims to know the skills of early childhood tutors in the context of the implementation of fine and gross motor lessons in children, analyze the influence of the implementation of healthy food cooking demo video toward the teaching skills of early childhood tutors, and analyze the effectiveness of the implementation of healthy food cooking demo videos on the teaching skills of early childhood tutors. This research conducted in Preschool Jakarta area. It consisted of Amanah Kindergarten Jakarta, Aisyiyah 45 Kindergarten Jakarta, and Al Mukhlisin Kindergarten Jakarta. This research conducted from March to October 2017. The research design used was Quasi-Experimental Design. Quasi-Experimental Design aimed to know the difference between two or more variables of the group that become the subject of research. The independent variable in this research was using healthy food cooking demo media. The dependent variable in this research was preschool tutor's teaching skill.

Validity test item was done by construct validity to the expert that was a lecturer of Educational Technology who teaches at the Culinary Study Program Faculty of Engineering, the State University of Jakarta named Annis Kandriasari, M.Pd. She tested the validity and skill instruments based on rubrics made and referred to the lesson plan. Based on the results of expert judgment, the instrument was feasible to be used for this research. Reliability test in this research used SPSS 16 version for r-value count 0,609, which means the instrument of this research has a high level of reliability. Prior to the t-test, pre-requisite test is performed as normality test as a requirement for research. This normality test uses One-sample Kolmogorov-Smirnov on SPSS 16 version. The data is said to be normally distributed if at Kolmogorov-Smirnov output coefficient Asymptotic Sig > value of the specified alpha value, i.e. 5% (0.05). Conversely, if the coefficient value Asymptotic Sig < 0.05 then the data otherwise not normally distributed.

Paired Sample Test statistics and for abnormally distributed data were tested by Wilcoxon statistics. Analysis with Paired Sample Test and Wilcoxon test was used to determine the significance of the change of tutors' teaching promptness before and after treatment at 95% confidence level using statistical software. If the p-value in the treatment group is < 0.05, then the provision of healthy food cooking video media has an effect on the changing of teaching skill of preschool tutor. The improvements that occur from before the learning activities using healthy video cooking media products i.e. before and after learning using media is calculated by the formula (N-Gain) is determined based on the average gain score. Average normalized gain (N-Gain) (Hake, 1998:2). In determining the effectiveness of cooking demonstration video media on teaching skills in Early Childhood Education tutors is seen from the measurement of pretest and post-test score data [9].

### 3. Results

#### 3.1 Description of Research Location

This research conducted in three kindergartens of Jakarta area. It consisted of Amanah Kindergarten Jakarta, Aisyiyah 45 kindergarten Jakarta, and TK Al Mukhlisin Jakarta. Kindergarten was chosen as a place of research because it met the criteria for research.

There were electronic learning devices such as LCD, laptop, and adequate facilities and learning about healthy foods that can support the implementation of research.

#### 3.2 Pre-test Result about Preschool Tutors' skill

**Table 1:** Distribution of pretest preschool tutor's skill

Score Criteria	Total	
	n (people)	Persentage (%)
> 80 (Good)	2	20
> 60 – 80 (Enough)	8	80
< 60 (Failed)		
Total	10	100
Mean (average value)	79	Enough
Median	79	Enough
Modus	76,19	Enough
Maximum Average	85,714	Good
Minimum Average	76,19	Enough
Deviation Standard	3,067	

Based on the data in table 1, it is known that the pre-test of teaching skill of early childhood tutors is obtained by value > 80 on good criteria as much as 2 respondents (20%) and value with range > 60 - 80 on enough criteria as many as 8 respondents (80%). Preliminary data on teaching skills of early childhood tutors showed an average score of 79 with sufficient criteria.

The median value was 79 with sufficient criteria and the mode value of 76.19 with sufficient criteria. The highest score is 85.714 and the lowest score is 76.19. The standard deviation of pre-test is 3.067.

#### 3.3 Post-test Data of Science Experiment Class Skills

**Table 2:** Distribution of post-test data preschool tutor's teaching skill

Value Criteria	Total	
	n (people)	Persentase (%)
> 80 (Good)	10	100
> 60 – 80 (Enough)	-	-
< 60 (Failed)	-	-
Total	10	100
Mean (average value)	91	Good
Median	91	Good
Modus	92	Good
Maximum Average	98,4	Good
Minimum Average	87,3	Good
Deviation Standard	3,84	

Based on the data in table 2, it is known that post-test teaching skills of early childhood tutors using healthy food cooking media video obtained an average value of 91 with good criteria. The median value of 91 with good criterion and value of mode equal to 92 with good criterion. The highest score is 98.4 and the lowest is 87.3. The standard deviation value of post-test is 3.84. Tutors who get good value criteria of 100%. During the learning process using video media, the tutor looks enthusiastic in paying attention to the material presented. Tutors also appear to be more active in learning activities and most tutors understand what is conveyed in the video, resulting in post-test results of teaching skills according to table 2.

### 3.4 The Percentage of Teaching Skill Observation

**Table 3:** The average of teaching skill observation aspects

Aspects	Total	Score	Score Criteria
Observing	41	82	Good
Questioning	40	80	Good
Associating	42	84	Good
Experimenting	43	86	Excellent
Communicating	37	74	Good

Based on table 4, it can be seen that the average of the overall percentage of observation of teaching skills from the aspects of observing, asking, reasoning, concluding and communicating that is 30% with very good criteria, then 50% with good criteria and by 20% with sufficient criteria. The average teaching skill is highest on the concluded aspect that values 86 on the criteria is very good. For the lowest average is on the communicating aspects of 74 on either criterion.

**Table 4:** The distribution data of teaching skills observation

Criteria	Total	
	N (person)	Percentage (%)
85-100 (excellent)	3	30
70-84 Good)	5	50
55-69 (Enough)	2	20
40-54 (Failed)	-	-
0-3 Very Failed)	-	-
Total	10	100

### 3.5 Normality Test

**Table 5:** Normality test result of pre-test and post-test toward Early Childhood Education tutors' teaching skills

Data	Kolmogorov Smirnov	Asymp Sig (2-tailed)	Result
Pre-Test	0,949	0,329	Normal Distribution
Post-Test	0,693	0,723	Normal Distribution

Based on table 5, it obtained by Asymp Sig Kolmogorov-Smirnov pre-test of teaching skills of  $0.949 > 0.05$  and  $0.329 > 0.05$ . Further data obtained Kolmogorov-Smirnov value on post-test teaching skills  $0.254 > 0.05$ , Asymp Sig of  $0.723 > 0.05$ . The results show pre-test data and post-test of teaching discharges normally distributed.

### 3.6 Skill Hypothesis Assessment

**Table 6:** The comparison of teaching skills before and after implemented cooking demonstration videos about healthy food

	Average	Standar Deviasi	p-Value
Pre –Test	79	3,232	0.001
Post –Test	91	3,837	

A score of teaching skills of early childhood tutors before the provision of healthy food cooking media is 79 with SD = 3,232, while the average score of teaching the skills of early child tutors after the provision of healthy food cooking media is 91 with SD = 3.837. Paired Sample Test result obtained  $p\text{-value} = 0.001 < \alpha (0.05)$  hence, there is a significant influence on the average of skill score of teaching the skill of early childhood tutor after giving intervention in the form of media of healthy food cooking.

### ***3.7 The Improvement of result skill***

Improved results of teaching skills of early childhood tutor can be known using the gain score formula is the gain score obtained during pretest and post-test. The value of the increase is 0.632. The value is interpreted into the Gain value classification table (Hake, 1998, p.3) is in the range of  $0.7 > (N\text{-gain}) \geq 0.3$ . Thus, the improvement of teaching skills of preschool tutors by applying healthy food cooking media is in the medium category.

### ***3.8 The Effectiveness of Cooking Demonstration Videos about Healthy Food***

Based on the result of the data, the average score obtained shows the description of the effectiveness of healthy food cooking media shows the average percentage value before applied is 79 converted to the percentage value that is 79% shows the scale effect. While the average percentage value after applied video media cook healthy food is 91% indicate criteria very effective (Sugiyono, 2005). Based on these data, the teaching skills of early childhood tutors after being applied to healthy cooking video media is more effective than the skill value before applied to the media.

## **4. Discussion**

After doing this research, it obtained data research results. Preliminary data on teaching skills of early childhood tutors showed an average score of 79 with sufficient criteria. Post-test teaching skills of early childhood tutors using healthy food cooking media video obtained an average value of 91 with good criteria. And after the normality prerequisite test, both samples are declared normal distribution so that can be done research on both samples. Early childhood students who are taught are more enthusiastic and more motivated to pay attention to the information conveyed in video form. Elderly students look calmer and pay attention to every information presented. It is in accordance with the disclosed [2] that the benefits of the use of video learning media will make the message delivered to be more interesting, attention is important in the learning process, because of the attention will arise / motivation to learn and can make students more concentrated. Paired Sample Test result obtained  $p\text{-value} = 0.001 < \alpha (0.05)$  because there is a significant influence on the average of skill score of teaching the skill of early childhood tutor after giving intervention in the form of media of healthy food cooking. After analyzing the data of the research result, it is found that there is an influence of using healthy food video media to teaching the skill of early childhood tutor. This is in line with that expressed by Sudjana & Rivai (2011: 24), that with learning video media students can do more learning activities because not only listening to the tutor's description but also other activities such as observing, performing, demonstrating, and exhibiting. Thus, the use of learning video media can be said to be more effective and can create an interesting learning

atmosphere, fun, so that tutors become more understanding of the material delivered and improve more optimal skills. The use of instructional media can also enhance teaching processes and outcomes with regard to students' thinking. According to [7], with learning video media lesson materials will be more clear meaning that can be better understood by students and enable master and achieve learning goals.

This opinion is also in line with that expressed by [2] which states that the level of absorption and memory of students on the subject matter can increase significantly if the initial information acquisition process is greater through the sense of hearing and sight, in this case, it is the learning video. With the video media messages delivered more attention, attention is important in the learning process, because of the attention will arise stimulus or motivation to learn. Based on the research data, it can be seen that the value of teaching skills in Early Childhood Education tutors improved better. The value of the increase is 0.632. The value is interpreted into the Gain value classification table is in the range of  $0.7 > (N\text{-gain}) \geq 0.3$ . Thus, the improvement of teaching skills of Early Childhood Education tutors by applying healthy food cooking media is in the medium category. This is in accordance with the disclosed [4] that how important the process skills that can be interpreted as a process to get the knowledge taught to students. Description of the effectiveness of healthy food cook medium media shows the average percentage value before applied by 79 converted to percentage value is 79% indicates effective scale criteria. While the average percentage value after applied video media cook healthy food is 91% indicate criteria very effective [9]. Based on these data, the teaching skills of early childhood tutors after being applied to healthy cooking video media is more effective than the skill value before applied to the media.

According to [9], learning is an effort done deliberately by educators to convey science, organize and create environmental systems with various methods so that students can perform learning activities effectively and efficiently and with optimal results. According to [10] reveals that learning is one of the educative acts done by tutors in the classroom. Actions can be said to be educative when oriented to the development of self or privately students as a whole, namely the development of knowledge, skills, and attitudes. From the above statement, tutors should be more competent in creating learning activities in accordance with these three aspects. Learning is broader than teaching, learning should result in learning on the students and a systematic plan should be undertaken [6]. From some of the description above, it can be concluded that learning is the process of interaction delivery of messages from educators to students through media and learning resources in a learning environment. Learning in this research is the process of delivering my food "needs" healthy food to Early Childhood Education students through learning video media. From some of the opinions above, teaching skills of early childhood tutors about healthy food are relevant to the results of research that researchers do. The results showed that the average value of teaching skills using healthy cooking media vide media was higher when compared with the mean score before using the media. So it can be concluded that there is an influence of using healthy food cooking media to teaching the skill at Early Childhood tutor.

## **5. Conclusion**

Based on the results of research and discussion, it can be concluded that the average score of teaching skills in early childhood tutors before the intervention was 79 and after the intervention increased to 91. The difference



in the average increase in the score on teaching skills that is 12, and there is a significant influence on the average score of teaching skills of early childhood tutors after giving intervention in the form of healthy food cooking video media with  $p = 0.001 < \alpha (0.05)$ .

## **References**

- [1] Asy'ari, Maslichah. Penerapan Pendekatan Sains Teknologi Masyarakat dalam Pembelajaran Sains di Sekolah Dasar. Yogyakarta: Universitas Sanata Dharma. 2006, pp 37.
- [2] Daryanto. Media Pembelajaran Peranannya Sangat Penting Dalam Mencapai Tujuan Pembelajaran. Yogyakarta: Gava Media. 2010, pp 87-91.
- [3] Djamarah, Syaiful Bahr., and Aswan Zain. Strategi Belajar Mengajar. Jakarta: Rineka Cipta. 2002, pp 82.
- [4] Hendro, Darmodjo., and Jenny R.E Kaligis. Pendidikan IPA. Proyek Pembinaan Tenaga Kependidikan Direktorat Jenderal Pendidikan Tinggi Departemen Pendidikan dan Kebudayaan. 1992, pp 52.
- [5] Kustandi, Cecep., and Sutjipto, Bambang. Media Pembelajaran: Manual dan Digital. Bogor: Ghalia Indonesia. 2013, pp 8.
- [6] Siregar, Eveline., and Nana, Hartini. Teori Belajar dan Pembelajaran. Bogor: PT Ghalia Indonesia. 2010, pp 14.
- [7] Sudjana, Nana., and Rivai, Ahmad. Media Pengajaran. Bandung: Sinar Baru Algensindo. 2011, pp 24.
- [8] Sugihartono, dkk. Psikologi Pendidikan. Yogyakarta: UNY Press. 2012, pp 81.
- [9] Sugiyono. Metode penelitian administrasi. Bandung: Alfabeta. 2005.
- [10] Syaodih, Ernawulan. Bimbingan di Taman Kanak-kanan. Jakarta: Depdiknas. 2005, pp 11.